

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
 - a document stand which puts a document thereon;
 - a reading section for a copy mode which optically
 - 5 reads an image of the document put on the document stand;
 - an input section for a printer mode which enters an image transferred from an external device;
 - a plurality of paper holding sections where paper
 - 10 is respectively accommodated in different sizes;
 - a print section which prints the image read by the reading section and the image entered by the input section on the paper of the respective paper holding sections;
 - 15 an operational section which specifies the size of the paper;
 - first, second, third, and fourth registers;
 - a first judgment section which checks whether or not the proper sized paper for the JOB exists in the
 - 20 paper holding sections when there occurs a copy JOB for printing the image read by the reading section on the paper of the size specified by the operational section, or a printer JOB for printing the image entered by the input section on the paper of the size specified by the
 - 25 external device;
 - a second judgment section which checks whether or not the JOB judged in the first judgment section is the

above copy JOB when the judgment result thereof is positive;

5 a first control section which registers the above copy JOB into the first register when the judgment result of the second judgment section is positive;

 a second control section which registers the JOB judged in the first judgment section into the second register as a saved JOB when the judgment result thereof is negative;

10 a third judgment section which checks whether or not the number of copies for the JOB judged in the second judgment section is less than a predetermined reference number when the judgment result thereof is negative;

15 a third control section which registers the JOB judged in the third judgment section into the third register as a priority JOB when the judgment result thereof is positive;

20 a fourth control section which registers the JOB judged in the third judgment section into the fourth register as an ordinal JOB when the judgment result thereof is negative;

25 a monitor section which continually monitors whether or not a JOB is registered in the respective registers in the order of the first, the second, the third, and the fourth registers when printing of the print section is completed; and

a fifth control section which executes the registered JOB at once when a JOB registered is found in the above monitor section.

5 2. The apparatus according to claim 1, further comprising

the respective registers which register a plurality of JOBS in the order of input.

3. The apparatus according to claim 1, further comprising:

10 an arithmetic section which requires the mean value of the number of copies for each JOB in a predetermined time; and

15 a sixth control section which updates the mean value required by the arithmetic section or the value less than the mean value as the reference number of copies.

4. The apparatus according to claim 1, further comprising:

20 an adding section which adds up the number of copies for each JOB in the predetermined hour;

25 an arithmetic section which requires the mean value of the number of copies for each JOB by dividing the total of the adding section by the number of the execution times for each JOB at every predetermined time interval; and

a sixth control section which updates the mean value required by the arithmetic section or the value

less than the mean value as the reference number of copies.

5. The apparatus according to claim 1, further comprising:

5 a second operational section which sets and resets an automatic setting mode of the reference number;

an adding section which adds up the number of copies for each JOB in a predetermined time when the automatic setting mode of the reference number is set
10 in the second operational section;

an arithmetic section which requires the mean value of the number of copies for each JOB by dividing the total of the adding section by the number of the execution times for each JOB at every predetermined
15 time interval, when the automatic setting mode of the reference number is set in the second operational section; and

a sixth control section which updates the mean value required by the arithmetic section or the value
20 less than the mean value as the reference number of copies.

6. The apparatus according to claim 1, further comprising

a receiving section for facsimile mode which
25 receives an image sent from a facsimile.

7. The apparatus according to claim 6, wherein the print section further prints out the image

received by the receiving section on the paper of the paper holding section.

8. The apparatus according to claim 7, wherein
the first judgment section checks whether or not
5 the proper sized paper for the JOB exists in some of
the paper holding sections when there occurs one of the
copy JOB for printing the image read by the reading
section on the paper of the size specified by the
operational section, the printer JOB for printing the
10 image entered into the input section on the paper of
the size specified by the external device, and the
facsimile JOB for printing the image received by the
receiving section on the paper of the size specified
previously.

9. An image forming apparatus comprising:
a document stand for putting a document thereon;
a reading section for a copy mode for optically
reading an image of the document put on the document
stand;
15 an input section for printer mode for entering
an image transferred from an external device;
a plurality of paper holding sections where paper
is respectively accommodated in different sizes;
a print section for printing the image read by
25 the reading section and the image entered by the input
section on the paper of the respective paper holding
sections;

operational means for specifying the size of the paper in the respective paper holding sections;

a first, a second, a third, and a fourth registers;

5 first judgment means for checking whether or not the proper sized paper for the JOB exists in the paper holding sections when there occurs a copy JOB for printing the image read by the reading section on the paper of the size specified by the operational means,
10 or a printer JOB for printing the image entered by the input section on the paper of the size specified by the external device;

second judgment means for checking whether or not the JOB judged in the first judgment means is the above
15 copy JOB when the judgment result thereof is positive;

first control means for registering the above copy JOB into the first register when the judgment result of the second judgment means is positive;

second control means for registering the JOB
20 judged in the first judgment means into the second register as a saved JOB when the judgment result thereof is negative;

third judgment means for checking whether or not the number of copies for the JOB judged in the second
25 judgment means is less than a predetermined reference number when the judgment result thereof is negative;

third control means for registering the JOB judged

in the third judgment means into the third register as a priority JOB when the judgment result thereof is positive;

5 fourth control means for registering the JOB judged in the third judgment means into the fourth register as an ordinal JOB when the judgment result thereof is negative;

10 monitor means for repeatedly monitoring whether or not a JOB is registered in the respective registers in the order of the first, the second, the third, and the fourth registers when printing of the print section is completed; and

15 a fifth control section for executing the registered JOB at once when a JOB registered is found in the above monitor section.

10. The apparatus according to claim 9, further comprising

the respective registers which register a plurality of JOBS in the order of input.

20 11. The apparatus according to claim 9, further comprising:

an arithmetic section for requiring the mean value of the number of copies for each JOB in a predetermined time; and

25 a sixth control section for updating the mean value required by the arithmetic section or the value less than the mean value as the reference number of

copies.

12. The apparatus according to claim 9, further comprising:

an adding section for adding up the number of
5 copies for each JOB in the predetermined time;

an arithmetic section for requiring the mean value
of the number of copies for each JOB by dividing the
total of the adding section by the number of the
execution times for each JOB at every predetermined
10 time interval; and

a sixth control section for updating the mean
value required by the arithmetic section or the value
less than the mean value as the reference number of
copies.

15 13. The apparatus according to claim 9, further comprising:

second operational means for setting and resetting
an automatic setting mode of the reference number;

adding means for adding up the number of copies
20 for each JOB in a predetermined time when the automatic
setting mode of the reference number is set in the
second operational means;

an arithmetic section for requiring the mean value
of the number of copies for each JOB by dividing the
25 total of the adding section by the number of the
execution times for each JOB at every predetermined
time interval, when the automatic setting mode of the

reference number is set in the second operational means; and

5 a sixth control section for updating the mean value required by the arithmetic section or the value less than the mean value as the reference number of copies.

14. The apparatus according to claim 9, further comprising

10 a receiving section for facsimile mode for receiving an image sent from a facsimile.

15 15. The apparatus according to claim 14, wherein the print section further prints out the image received by the receiving section on the paper of the respective paper holding sections.

16. The apparatus according to claim 15, wherein
the first judgment section checks whether or not the proper sized paper for the JOB exists in the respective paper holding sections when there occurs one of the copy JOB for printing the image read in the
20 reading section on the paper of the size specified by the operational section, the printer JOB for printing the image entered into the input section on the paper of the size specified by the external device, and the facsimile JOB for printing the image received by the
25 receiving section on the paper of the size specified previously.

17. A method of controlling the image forming

apparatus having

a document stand for putting a document thereon;

a reading section for a copy mode for optically
reading an image of the document put on the document
stand;

an input section for printer mode for entering
an image transferred from an external device;

a plurality of paper holding sections where paper
is respectively accommodated in different sizes;

a print section for printing the image read by the
reading section and the image entered by the input
section on the paper of the respective paper holding
sections;

operational means for specifying the size of the
paper in the respective paper holding means; and

a first, a second, a third, and a fourth
registers, the method comprising:

a first step for checking whether or not the
proper sized paper for the JOB exists in the paper
holding sections when there occurs a copy JOB for
printing the image read by the reading section on the
paper of the size specified by the operational means or
a printer JOB for printing the image received by the
input section on the paper of the size specified by the
external device;

a second step for checking whether or not the JOB
judged in the first step is the above copy JOB when the

judgment result thereof is positive;

a third step for registering the above copy JOB in the first register when the judgment result of the second step is positive;

5 a fourth step for registering the JOB judged in the first step into the second register as a saved JOB when the judgment result thereof is negative;

a fifth step for checking whether or not the number of copies for the JOB judged in the second step is less than a predetermined reference number when the judgment result thereof is negative;

10 a sixth step for registering the JOB judged in the fifth step into the third register as a priority JOB when the judgment result thereof is positive;

15 a seventh step for registering the JOB judged in the fifth step into the fourth register as an ordinal JOB when the judgment result thereof is negative;

an eighth step for continually monitoring whether or not a JOB is registered in the respective registers in the order of the first, the second, the third, and the fourth registers when printing of the print section is completed; and

a ninth step for executing the registered JOB at once when a JOB registered is found in the eighth step.

25 18. The method according to claim 17, wherein

the apparatus has a receiving section for facsimile mode for receiving an image sent from

a facsimile.

19. The method according to claim 18, wherein
the print section of the apparatus further prints
out the image received by the receiving section on the
5 paper of the paper holding sections.

20. The apparatus according to claim 19, wherein
the first step checks whether or not the proper
sized paper for the JOB exists in the respective paper
holding sections when there occurs one of the copy JOB
10 for printing the image read by the reading section on
the paper of the size specified by the operational
section, the printer JOB for printing the image entered
into the input section on the paper of the size
specified by the external device, and the facsimile JOB
15 for printing the image received by the receiving
section on the paper of the size specified previously.